

A VREF PROGRAMME

MOBILITY & ACCESS



CALL FOR RESEARCH PROPOSALS

GRANTS FOR COMPARATIVE RESEARCH PROJECTS 2021

DEADLINE FOR
SUBMISSION 29
SEPTEMBER 2020

VREF invites applications for research grants to support projects that will be implemented 2021 under the VREF programme “Mobility and Access in African Cities” (MAC), see below. Deadline for submission of applications is 29 September 2020.

The Volvo Research and Educational Foundations (VREF) is an independent foundation that inspires, initiates and supports research and educational activities that can contribute to new knowledge on broad issues related to urban mobility and access.

VREF’s mission is to support the development of research on ideas, approaches and solutions that can contribute to equitable access and sustainable urban mobility in ways that can radically reduce transportation’s negative local and global environmental impacts.

An important goal is also to support educational programmes in these areas, as well as facilitate dissemination and implementation of research findings among both university researchers, practitioners, decision-makers and other relevant stakeholders, see www.vref.se.



1. BACKGROUND

Mobility and Access in African Cities (MAC) is a VREF-funded initiative with the purpose of increasing the knowledge and capacity base on equitable and sustainable mobility and access in cities in sub-Saharan Africa. The programme is being carried out 2019 – 2024*

The MAC programme seeks to contribute to forming a new generation of highly skilled sub-Saharan university researchers and teachers, as well as to engage professionals, policy makers and actors within civil society who are committed to achieving goals of sustainable and equitable urban mobility and access. Leading international experts can also contribute to the programme through collaborative research projects with their sub-Saharan African counterparts.

The MAC programme is implemented through four activity streams:

1. Building academic capacity and skills
2. Supporting next generation African scholars
3. Research and knowledge building
4. Building communities of learning – dissemination and dialogues

*see also: <http://www.vref.se/macprogramme>

The 1st call for research proposals within the MAC programme was launched in 2019 and resulted in VREF funding for eight projects, which are being implemented in 2020 (see www.vref.se for more information).

In 2019, VREF commissioned five position papers on the current state of knowledge within core themes of the programme. These papers, which will be published in August 2020, focus on the following themes:

- User Needs and Practices in African Cities
- Governing Mobility in African Cities
- Emerging Business Models and Service Options in the Shared Transport Sector in African Cities
- Safety, Health and the Urban Environment in Sub-Saharan Africa
- Public Transport System Design and Modal Integration in African Cities



2. WHAT RESEARCH THEMES AND WHO CAN APPLY?

The current, 2nd call for research projects within the MAC programme is directed to the following groups:

- sub-Saharan university-based researchers who have expertise on sustainable and equitable mobility and access in sub-Saharan African cities;
- sub-Saharan university-based researchers who have not previously engaged in transport-related research but who have expertise that could fruitfully be applied to these areas;
- sub-Saharan university-based researchers with strong interests in carrying out interdisciplinary research that can contribute to new knowledge and insights on issues related to sustainable and equitable mobility and access.

The Call focuses on small, cross-disciplinary projects within the following core themes of the MAC programme:

- + **Theme 1:** User Needs and Practices, Equity Issues
- + **Theme 2:** Governance, Politics, Institutions and Finances
- + **Theme 3:** Emerging Business Models and Services Options
- + **Theme 4:** Safety, Health and the Urban Environment
- + **Theme 5:** System Design and Modal Integration
- + **Theme 6:** Analytical Tools

See **Annex 1** for brief descriptions of the themes.

More specifically, the Call is directed at exploratory, comparative research on issues that are relevant to these themes. This work can entail the exchange of e.g. empirical work (such as case studies), methodologies, analytical tools, data collection, policy experiences or research results from work on sustainable and equitable mobility and access in specific urban contexts in sub-Saharan Africa.

This type of comparative research can encompass both the exchange of in-depth knowledge that has already been accumulated over time but has not previously been placed in a comparative perspective, as well as new, exploratory work on emergent issues or approaches within the respective thematic areas.

VREF foresees that successful research proposals will approach these areas through cross-disciplinary approaches that link perspectives and approaches from multiple disciplines or areas, e.g. engineering, social sciences, behavioural sciences, and the humanities.



3. CRITERIA FOR PROJECTS

Successful project proposals must fulfil the following criteria:

- › Projects must be directed at generating new knowledge that clearly addresses issues in at least one of the above thematic clusters (linkages to additional thematic clusters may also be included);
- › Projects must include comparative work from urban areas in at least two sub-Saharan African countries;
- › The project leader must be based in a research environment at a university in sub-Saharan Africa;
- › The project team must consist of researchers from at least two different universities in sub-Saharan Africa (other partners, such as cities, organisations from civil society or NGOs may also be included)

In addition, VREF encourages projects which also fulfil one or more of the following criteria:

- › Projects that encompass comparative work, approaches and perspectives from different regions in sub-Saharan Africa (Western Africa, Eastern Africa, Southern Africa);
- › Projects that encompass comparative empirical work, approaches and perspectives from secondary or tertiary cities in sub-Saharan Africa;
- › Projects that are cross-disciplinary, i.e. that include researchers or research groups from different disciplines or fields;
- › Projects that engage scholars who have not previously engaged in transport-related research or who have not previously been part of VREF's research network;
- › Projects that engage young scholars (within five years after Ph.D.) and reflect gender balance in the research team;
- › Projects that include relevant international expertise to complement the competence of the applicant team(s);



4. BUDGET AND TIMEFRAME

The total budget for this Call is 3 million Swedish crowns (approx. 280,000 Euros). VREF envisages supporting up to six projects, each with a grant up to approx. 47,000 Euros. The project grant can be used to cover costs for salaries, travel, equipment, possible workshops/project meetings and other costs directly linked to project implementation.

The grant should be shared between two or more universities/research environments, so that one university/research environment will not receive more than 60% of the total grant.

The VREF grant is intended to support the project fully or partly, depending on the total volume of the project and the possibilities for co-funding. The VREF thus welcomes additional funding to projects from other sources (co-funding).

The projects supported under this Call are expected to start in early 2021 and be finalised by 31 December 2021, i.e. have a total duration of not more than one year (12 consecutive months).

All qualifying applications will be reviewed by international evaluators and the VREF Scientific Council in October 2020. The Scientific Council will submit its recommendations concerning funding of specific projects to the VREF Board, who will make a formal decision on project grants in early December 2020. VREF will inform all applicants on the outcome of the process before 20 December 2020.



5. SUBMITTING AN APPLICATION

An application for a project grant must be submitted by e-mail to secretariat@vref.se and received no later than 29 September 2020.

VREF will confirm receipt of each application by e-mail to the main applicant.

Please see the next section “Application guidelines and instructions” for detailed instructions for how to apply. Applicants are welcome to contact VREF by e-mail: secretariat@vref.se for further information or for clarification regarding the requirements for applications.

To ensure maximum transparency in the recruitment process, all questions and VREF’s answers to them will be published in a Q&A page on the VREF web site.

APPLICATIONS GUIDELINES AND INSTRUCTIONS

All applications for research funding within this Call must

- + be structured and delineated in accordance with the guidelines stated below;
- + be written in English;
- + be delivered according to the following technical specifications:
 - + consist of a maximum of 10 single pages, excluding short CV's for key researchers in the project, and excluding references/bibliography
 - + be saved in PDF file format (of ready-to-print quality)
 - + be laid out in European A4 paper format, with a minimum font size of 12 pt. and margins of at least 25 mm;

Applications exceeding the specified maximum number of pages will be rejected.
Detailed instructions on the content and format of the application are provided below.



6.1 INFORMATION TO BE GIVEN ON THE FRONT PAGE

(NB that the front page and annexes are not included in the 10 pages' limit)

Name and contact details of main applicant

The main applicant (project leader) must be an individual, not an organisation. Please note that only one person shall be the main applicant. State name, title and function, affiliation and all contact information.

Project title

The title should be concise and informative, preferably including keywords characterising the content and direction of the project.

Names and addresses of project team members

List the names and affiliations of all project team members, plus contact information.

Executive Summary (max 300 words)

The summary should consist of a brief outline of the problem, the objective(s) and general approach of the project, indicating the factors that gives an added value of the project to existing work in the field.



6.2 STRUCTURE OF THE APPLICATION

The application should be structured around the following elements:

Background and motivation to the project

Provide a clear statement of the problem to be addressed, as well as the background, context and challenges of the issues to be addressed in the project. A theoretical framework and state-of-the-art (with references) that informs the work should also be included in this section.

Objectives

Identify the research question(s) to be addressed, as well as the main objective(s) that will be achieved over the duration of the project.

Project Design/methodology

Describe the overall project design, methodology, working methods and detailed programme of work. This section should also include descriptions of the main activities and the linkages between them, foreseen deliverables and a time schedule.

Project participants and organisation

The application should give information on how the project will be organised, how the parts of the project will be interlinked, who will be responsible for different parts of the work, what specific roles that all participants will have in the project and how the project will be managed and coordinated.

The VREF accepts that there may be further considerations and recruiting of staff for the project needed after the funding decision by VREF; however, all key participants in the project must be identified in the application.

Budget

The application should include a detailed budget for the project, including distribution of costs (e.g. salaries, overhead, other costs) among participating researchers/universities and others. NB all overheads, VAT and similar costs must be included in the budget. Please indicate in the budget if the project will be partly funded (co-funded) by other sources than VREF.

VREF advises applicants to present the project budget according to the template below:

Template for project budget

Please state the below funding and costs in SEK (1 SEK = approx. 0,10 USD or 0,09 Euros)				
Total Project cost				
Requested VREF funding				
Other expected project funding (if any)				
Distribution of project costs	Host Institution	Partner A	Partner B	Partner C, etc.
Distribution of total project costs between the project partners				
Staff costs		N/A	N/A	N/A
Other project costs		N/A	N/A	N/A
University overheads		N/A	N/A	N/A

Expected outcome and outreach including contributions to new knowledge

Describe briefly the expected research results, outcomes and possible impact on research, education, policy and/or practice in the project area. This section may also include identifying new research issues and methodological approaches that should be further explored, as well as discussing possible future engagements with various stakeholders in exploring these issues.

Appendix

In addition to the application’s main document (max 10 pages), the following two annexes should be added

- + Bibliography/References
- + Short CV’s (maximum 3 pages) for core researchers in the project

ANNEX 1: RESEARCH TOPICS OF THIS CALL - CORE THEMES

The range of disciplines that could be applied to research within this Call is broad and non-exclusive. Examples of areas include transport technology, urban studies/urban planning, sociology, geography, anthropology, social psychology, organisational theory and economics. VREF explicitly encourages the participation of Sub-Saharan research environments that traditionally have not applied their knowledge to transport issues, but whose perspectives, approaches and methods might fruitfully be applied in new ways to increase our understanding of these issues. In particular, VREF notes that there is currently relatively little work in the social or behavioral sciences that is directed toward developing an in-depth understanding of specific challenges, problems, barriers, and potentials entailed in increasing mobility and access in Sub-Saharan cities.

The MAC programme encompasses six Core Themes (table 1 below) that have strong relevance for achieving sustainable and equitable urban mobility and access in sub-Saharan Africa.

Table 1. Overview of MAC's Core Themes.

Core Theme 1	User Needs and Practices, Equity Issues
Core Theme 2	Governance, Politics, Institutions and Finance
Core Theme 3	Emerging Business Models and Services Options
Core Theme 4	Safety, Health and the Urban Environment
Core Theme 5	System Design and Modal Integration
Core Theme 6	Analytical Tools

Each MAC Core Theme is briefly described in the following sections.

Core Theme 1: User Needs and Practices, Equity Issues

City planners, transport engineers and government officials make decisions based on pre-existing knowledge on transport flows and mobility needs at the generalised and aggregated level. Implicitly this also contains assumptions about users' behaviour and needs. Yet often people don't behave or make their transportation choices according to the preconceived expectations of decision-makers. In addition, actual mobility needs, also among marginalised groups, cannot readily be transformed into demand and mobility services.

Overall, there is a lack of in-depth, qualitative studies of actual travel/mobility practices, problems and needs among heterogeneous groups in sub-Saharan Africa: their everyday patterns of mobility, their needs, preferences and restrictions, their experiences and challenges in gaining access to various modes of travel, and the implications of such barriers for their daily lives.

This knowledge gap may result in low load factors of public transport investments, lack of political legitimacy, bad-will and resistance from citizens, or suppression of alternative solutions.

VREF wants to encourage establishment of new knowledge concerning what various groups and peoples in Sub-Saharan cities want and need from mobility solutions. This may include questions such as:

- + How can we better understand the needs and preferences of different groups, e.g. women, children, the middle class, the disabled, those with weak socioeconomic resources and others? How do they get about, what access problems do they face, what choices are/are not available to them, and how might we start to think about perhaps radical changes in approaches to access that might start to address the needs of specific groups, particularly marginalized groups?
- + How can users (and potential new users) express their preferences, and how can this translate into developing policy and service supply more effectively?
- + How are users' preferences influenced by urban form and current planning and mobility paradigms? Conversely, how can urban form and planning be better informed by users' perspectives?

Core Theme 2: Governance, Politics, Institutions and Finance

The governance systems of cities set the stage for how various actors can influence decisions and the design of systems and services. Governance is embedded in power relations and is expressed in formal legislation and regulations as well as informal norms, beliefs and value systems. Institutional structures do not only govern what actors can do and how service provision can be organised; it also affects actors' ability to manage economic risks and to finance investments. Historically, the need to mobilise resources and organise services in cities has, in many parts of the world, affected institutional development, thus making governance, institutions and finance closely intertwined.

There is relatively little work on governance processes, dynamics and barriers within transport planning and politics, as well as approaches to transport policies more broadly conceived in Sub-Saharan contexts. VREF therefore encourages research that focuses on governance issues and analyses the political and institutional factors and contexts that shape, constrain or enable innovative mobility solutions in Sub-Saharan cities. VREF welcomes research that examines broad issues such as:

- + What factors have significance for the institutional capacity of urban management to develop and govern more equitable access and sustainable mobility?
- + How can urban policy, governance and democracy be further developed in ways that explicitly deal with issues of social equity, i.e. that are directed toward increasing the mobility and access of disadvantaged groups?
- + What are the characteristics of mobility-related institutions (e.g. their roles, responsibilities, rights, expertise and financing capacity) at different levels and bodies of government that can be considered 'best practice' in Africa, and what are the implications of these practices for developing new approaches to access and mobility in Sub-Saharan cities?
- + How can new approaches to finance solutions for mobility be developed that are specifically suited to the institutional context in African cities?

Core Theme 3: Emerging Business Models and Services Options

In many cities in Africa the informal operators provide the bulk of mobility services offered. Despite attempts from governments and urban leaders to outmanoeuvre, regulate or prohibit them, informal service providers often remain the only real option for the majority of low-income populations. The informal services sector has proven both robust over time and flexible in organisation, with services coming in a wide variety of forms: minibuses or 'matatus', the 'boda-boda' bicycles, motorcycle taxis and of late also shared mobility through ICT-applications. This large variation across the continent offers great potential for learning, for recombination and successful innovation.

VREF wants to generate new knowledge that sets out to map, compare and evaluate the many different business models emerging in different parts of Africa among private and informal operators of urban and near-urban mobility services, as well as the ways in which public policies may further develop these services. This can include research on what might be called 'cultures of service provision', by which is meant in-depth work on operators, owners, drivers and passengers in specific sites – their perspectives, practices, values and challenges. This core theme will focus on issues like:

- + Are some business models more successful and viable than others?
- + How do different service providers view their respective roles? What ways of thinking, operating and organizing service provision create barriers to change? What problems and potential solutions are possible, and what are their implications for potential reform?
- + In what ways do formal institutional settings and the public transport systems define/complement/compete with the informal mobility sector – and what approaches might be applied to achieve greater complementarity?
- + How can public authorities best collaborate with informal actors to recombine models and establish formal-informal hybrids?

Core Theme 4: Safety, Health and the Urban Environment

Hundreds of thousands of people in African cities die or get seriously injured each year from traffic accidents, from obesity associated with not walking and from poor air quality. Cityscapes often designed during colonial or segregationist regimes are not laid out to be inclusive or with the purpose of granting equal access. This situation has been further exacerbated by a planning paradigm centred on the automobile, has forced people into unhealthy and dangerous mobility practices when traversing these hostile cityscapes. Increasing local pollution from fuel combustion creates negative health externalities for every traveller, but typically hits the low-income population hardest. Accessibility, health and safety thus relates to the overarching urban form and its representations of inequality, but is also directly linked to the configuration and design of urban places and infrastructure, traffic management, attitudes and safety awareness.

VREF encourages research that specifically connects urban form and the design of urban places and infrastructure with safety and health risks for all travellers including pedestrians and cyclists. Possible areas of inquiry include:

- + What do we know about mobility-related health effects in Sub-Saharan cities, and what are the implications for future urban planning?
- + How might existing African urban forms be re-shaped or transformed in ways that could lead to increased equity, accessibility and safety for broad groups, and what concrete approaches, strategies and policies for implementing such changes might be developed?
- + What is the effect of e.g. road safety policies and safety education on different groups of travellers, what makes them effective and what new approaches might be developed?

Core Theme 5: System Design and Modal Integration

Models for improved mobility centred on a particular modal solution are sometimes imported and implemented in a wholesale fashion by city leaders, development partners or service providers. But citywide transport systems that have proved their worth in Asia, Latin America or Europe, are no panacea and there is little evidence that "one size fits all". There is an urgent need for a system design approach customised to African cities in various sociocultural contexts. In particular, understanding how different modal solutions can be (re)combined and integrated into a continuous, city-wide, system of mobility is seen as a key for improved accessibility.

VREF is interested in supporting systems-oriented research that focuses on design and integration of mobility approaches and solutions at urban levels. We hope to start answering questions such as:

- + What are the experiences and policy implications of recent system design including the introduction of specific modal solutions like BRT in Africa?
- + How does modal integration and different modal mixes affect system-level performance and sustainability?
- + What are the critical barriers for modal integration and system-level mobility design in Sub-Saharan cities, and what new approaches might be developed?

Core Theme 6: Analytical Tools

Decision-makers, urban planners and other leaders in both the public and private sectors need to be able to evaluate and assess different mobility solutions and the diverse dimensions of large undertakings such as public transport systems. However, there is a lack of – or lack of application of - comprehensive analytical tools that capture the dynamics and issues that are entailed in transforming mobility and access in Sub-Saharan cities, including costs and benefits for society and nature, equity issues, and planning/policy approaches. Furthermore, the complexity of social and political processes related to urban mobility and infrastructure is generally poorly understood, often leading to delays or failed projects.

The ICT revolution that is sweeping through large parts of Africa, on the other hand, offers new possibilities for monitoring and analysis, which provides a potential for radically changing consumer-operator interfaces and governance relationships. New applications and enhanced data processing capacity also open up for linking different types of data from different sources in integrated analysis, e.g. transport and health, transport and urban land use. On the whole, new research agendas are opening up in response to such needs, leading to opportunities for developing different types of analytical tools from areas such as urban studies, planning and politics that can be applied to better understanding mobility and consumption in Africa.

VREF particularly encourages the use of enhanced analytical tools and methods, including comparative studies, from interdisciplinary fields and relevant areas within social and behavioural sciences that to date might not have been applied to understanding issues related to mobility and access in Sub-Saharan cities. Examples of approaches:

- + How can models and approaches for determining social, economic and environmental costs and benefits of mobility interventions be further developed?
- + How does the political economy of an African city in a specific context affect specific urban transport projects, long-term sustainability, and mobility and equitable access in general?
- + How can new ICT applications, such as remote sensing, crowd-sourcing and Big Data, be utilised in understanding and improving mobility and access?
- + How can analytical tools from multidisciplinary research of various social, economic, political and environmental factors affecting urban development and growth in Africa be applied to strengthen transport planning and policy in Sub-Saharan cities?